

REMARKS/ARGUMENTS

The Examiner found that claims 7-9, 17-19, and 27-29 would be allowed if rewritten in independent form including the requirements of the base claims. Applicants submit that these claims are in condition for allowance in their current form because the base claims from which they depend are patentable over the cited art for the reasons discussed below.

1. Claims 1-3, 6, 10-13, 16, 20-23, 26, and 30 are Patentable Over the Cited Art

The Examiner rejected claims 1-3, 6, 10-13, 16, 20-23, 26, and 30 as obvious (35 U.S.C. §103) over Suzuki (U.S. Patent No. 6,549,947) in view of Herzog (U.S. Patent No. 4,651,278). Applicants traverse.

Claims 1, 11, and 21 concern interfacing with a print driver and require: receiving data transmitted from the printer driver; receiving an acknowledgment request from the printer driver, wherein the printer driver does not send further data to print until receiving an acknowledgment reply indicating that the transmitted data passed an initial check; transmitting an acknowledgment reply to the printer driver in response to the acknowledgment request before completing the initial check of the sent data to cause the printer driver to send further data; resynchronizing data processing operations in response to detecting an error in the received data; and rasterizing and outputting the data.

The Examiner cited col. 15, lines 4-10 and col. 24, lines 20-25 of Herzog as teaching the claim requirement of receiving an acknowledgment request from the printer driver, wherein the printer driver does not send further data to print until receiving an acknowledgment reply indicating that the transmitted data passed an initial check. (Second Office Action, pg. 2) Applicants traverse.

The cited col. 15 mentions that the host, after sending a command requesting acknowledgment, is not allowed to receive any further commands until receiving an acknowledge reply from the printer. Nowhere does the cited col. 15 teach or suggest the claim

requirement that the acknowledgment reply indicate that the transmitted data passed an initial check

The cited col. 24 mentions that error checking for the presence and content relative to a page of all included resources is performed at page build time. Missing resources will be detected as synchronous page construction errors.

Although the cited col. 24 mentions error checking performed at page build time, nowhere does the cited col. 24 anywhere teach or suggest that the acknowledgment reply indicate that the transmitted data passed an initial check. The Examiner has not cited any part of Herzog that teaches that the cited acknowledgment on the cited col. 15 is related or connected to the error checking described at the cited col. 24. There is no teaching or suggestion in the cited Herzog that the acknowledgment reply mentioned on the cited col. 15 indicates that the data passed the error checking described in the cited col. 24.

Accordingly, neither the cited Herzog or Suzuki teach or suggest this claim limitation.

The Examiner cited col. 6, lines 32-65 and cols. 7-8 and FIGs. 7-8 of Suzuki as teaching the claim requirements of transmitting an acknowledgment reply to the printer driver in response to the acknowledgment request before completing the initial check of the sent data to cause the printer driver to send further data. (Second Office Action, pg. 3) Applicants traverse and submit that the cited Suzuki does not teach or suggest transmitting the acknowledgment reply before completing the initial check when the printer driver does not send further data until receiving an acknowledgment that the transmitted data passed a check. In other words the cited art does not teach or suggest transmitting an acknowledgment indicating an initial check passed to the printer driver before completing the initial check.

The cited col. 6 mentions that the printer can return a reply to the printer monitor immediately after the printer has received the command. The printer can buffer a command from the print monitor. The printer interprets the command, checks the status of an error and then generates and returns a reply to the command. (Suzuki, col. 6, line 32 to col. 7, line 7) Although the cited cols. 6-7 discuss returning a reply immediately upon receipt or after checking the status,

nowhere do the cited cols. 6-7 teach or suggest transmitting an acknowledgment to the printer driver indicating an initial check passed before completing the initial check to cause the printer driver to send further data.

The cited cols. 7-8 further mention that the printer uses a RAM as a receiving buffer. The printer monitor controls transmission of a bit image in accordance with a printer status to effect correct printing operation. The cited cols. 7-8 and FIGs. 7-8 discuss further commands, such as a job initiation declaration, job termination declaration, page start declaration, page end declaration, band transmission declaration, configuration data request to cause the printer to send information on the printer configuration and the current status, setting data request and status request, which may include status of an error.

Although the cited cols. 7-8 and FIGs. 7-8 discuss different types of requests and declarations and replies by the printer to these requests including status, nowhere do the cited cols. 7-8 of Suzuki teach or suggest transmitting an acknowledgment to the printer driver indicating an initial check passed before completing the initial check to cause the printer driver to send further data. Nowhere in the cited cols. 7-8 or other cited art is there any mention of these claim requirements.

Moreover, Applicants submit that the cited Suzuki teaches away from the requirement of transmitting the acknowledgment reply indicating that a check passed before completing the initial check to cause the printer driver to send more data. Suzuki mentions that the "capabilities primarily performed by a CPU 231 provided in the printer 3 correspond to the interpretation of a command, checking of the status of an error in the printer, and generation and return of a reply corresponding to the command" (Suzuki, col. 6, line 63 to col. 7, line 1) Thus, the cited Suzuki mentions that the status is checked in reply to a status request and the status is returned in response to the reply. (See also, col. 8, lines 47-67) Thus, the cited Suzuki does return the actual status, which teaches away from transmitting an acknowledgment reply before completing the initial check to cause the printer driver to send further data. Suzuki teaches away from sending the acknowledgment before completing the initial check because the acknowledgment in the

cited Suzuki includes the status. Nowhere does the cited Suzuki teach or suggest returning status of an error before performing the initial check when the printer driver is waiting to receive an acknowledgment reply indicating that the data passed a check.

Accordingly, even if one were to modify Suzuki with Herzog as the Examiner proposes, the cited combination still does not teach or suggest the combination of requirements of claims 1, 11, and 21 because the cited art does not teach, alone or in combination, all the requirements for which it is cited.

Claims 2-4, 6, 10, 12-14, 16, 20, 22-24, 26, and 30 are patentable over the cited art because they depend from claims 1, 11, and 21, which are patentable over the cited art for the reasons discussed above. Moreover, the following below discussed dependent claims provide additional grounds of patentability over the cited art.

Claims 2, 12, and 22 depend from claims 1, 11, and 21 and further require that the received data comprises a first received data set, further comprising receiving a second data set from the printer driver after transmitting the acknowledgment reply and before completing the rasterization of the first data set. The Examiner cited Suzuki and Herzog as teaching the additional requirements of these claims, but did not cite specific sections of Suzuki or Herzog that actually mention this requirement. (Office Action, pg. 3) Applicants traverse.

Although the cited Herzog and Suzuki discuss acknowledgment replies, the Examiner has not cited any specific section of these references that teaches or suggests receiving a second data set from the print driver after transmitting the acknowledgment reply and before completing the rasterization of the first data set. The Examiner has not cited any part of these references that disclose the claim requirements of receiving the second data.

Accordingly, claims 2, 12, and 22 provide additional grounds of patentability over the cited art.

Claims 10, 20, and 31 depend from claims 1, 11, and 21 and further require transmitting the acknowledgment reply to the printer driver in response to the acknowledgment request before completing the initial check of the sent data comprises an asynchronous processing mode, and

wherein resynchronizing data processing operations in response to detecting the error comprises beginning a synchronous processing mode wherein the acknowledgment reply is sent to the printer driver in response to the acknowledgment request after completing the initial check of the resent data.

The Examiner cited col. 15, lines 40-45 of Herzog as teaching that the acknowledgment reply sent before completing the check is in an asynchronous mode. (Second Office Action, pg. 5) Applicants traverse.

The cited col. 15 actually teaches away from the claim requirement of an asynchronous acknowledgment reply, because the cited col. 15 mentions that ACKs are submitted synchronously in response to an acknowledgment request. Col. 15 mentions that negative acknowledgments may be sent asynchronously or synchronously. However, the claims require an acknowledgment reply indicating that an initial check completed, which is not a negative acknowledgment. In the cited col. 15, ACKs are sent synchronously, not asynchronously as claimed. Thus, the cited col. 15 teaches the opposite of what is claimed, synchronous instead of the claimed asynchronous acknowledgment reply.

The Examiner cited col. 15 and col. 10, lines 1-4, lines 1-45 of Suzuki as teaching the claim requirement of resynchronizing data processing operations in response to detecting that the error comprises beginning a synchronous processing mode wherein the acknowledgment reply is sent to the printer driver in response to the acknowledgment request after completing the initial check of the resent data. (Second Office Action, pg. 5) Applicants traverse.

The Examiner cited col. 10, lines 1-45 of Suzuki as teaching that the resynchronizing operations begin a synchronous processing mode. The cited col. 10 mentions that the print monitor sends a job initiation declaration and receives a reply. Although the cited Suzuki discusses sequential commands, nowhere does the cited Suzuki teach or suggest that resynchronizing comprises beginning a synchronous processing mode when an asynchronous mode was used before detection of the error. In other words, nowhere does the cited Suzuki

anywhere teach or suggest switching from asynchronous mode to synchronous mode printer processing in response to detecting an error.

The cited col. 10 further discusses how a print monitor communicates with a printer to determine whether to send pages. Nowhere does the cited col. 10 anywhere teach or suggest the claim requirement of switching from asynchronous mode to synchronous mode printer processing in response to detecting an error, so that in the synchronous mode the acknowledgment reply is sent in response to the acknowledgment request after completing the initial check of the resent data.

Accordingly, claims 10, 20, and 31 provide additional grounds of patentability over the cited art.

2. Claims 4, 14, and 24 are Patentable over the Cited Art

The Examiner rejected claims 4, 14, and 24 as obvious (35 U.S.C. §103) over Suzuki and Herzog and further in view of Suzuki (EP820004). Applicants submit that these claims are patentable over the cited art because they depend from claims 1, 11, and 21, which are patentable over the cited art for the reasons discussed above.

3. Claims 5, 15, and 25 are Patentable over the Cited Art

The Examiner rejected claims 5, 15, and 25 as obvious (35 U.S.C. §103) over Suzuki and Herzog and further in view of Parker (U.S. Patent No. 6,441,919). Applicants submit that these claims are patentable over the cited art because they depend from claims 1, 11, and 21, which are patentable over the cited art for the reasons discussed above.

Conclusion

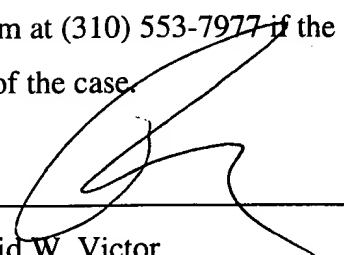
For all the above reasons, Applicant submits that the pending claims 1-30 are patentable over the art of record. Applicants have not added any claims. Nonetheless, should any additional fees be required, please charge Deposit Account No. 50-0563.

Amdt. dated Sept. 14, 2005
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The attorney of record invites the Examiner to contact him at (310) 553-7977 if the Examiner believes such contact would advance the prosecution of the case.

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